

REMARKS**Status of Claims**

Claim 42 is allowed. Claim 65 would be allowable if rewritten in independent form to include the limitations of the base claim and any intervening claims.

Claim Amendments

Claim 54 has been amended to recite that the primers comprise an array of immobilized, consecutive, single-stranded oligonucleotides having known sequences, wherein each primer differs from the previous primer in the array by one base at the 3' end, and wherein the primers are capable of hybridizing successively along the polynucleotide of interest, generating a plurality of annealed primers. Support for the amended claim is found, for example on page 7, lines 12-25 of the Specification.

Rejection of Claims Under 35 U.S.C § 102(a) and (e)

Claims 54-63 are rejected under 35 U.S.C § 102(a) and (e) as being anticipated by Soderlund (U.S. Patent 6,013,431) and Soderlund (WO 91/13075).

Claim 54 has been amended to recite that the primers comprise an array of immobilized, consecutive, single-stranded oligonucleotides having known sequences, wherein each primer differs from the previous primer in the array by one base at the 3' end, and wherein the primers are capable of hybridizing successively along the polynucleotide of interest, generating a plurality of annealed primers.

Soderlund teaches that the target is immobilized (Col. 6, lines 1-52, Fig. 3, Col 9, lines 27-28). Soderlund does not teach or suggest that the detection primers are immobilized (see Col. 7, line 7-65).

Claim 54, as amended, is novel of the teachings of Soderlund. Claims 55-63 are dependent from Claim 54 and include all of the limitations of Claim 54. Therefore, Claims 55-63 are also novel over Soderlund. Withdrawal and reconsideration of the rejection is respectfully requested.

Rejection of Claims Under 35 U.S.C § 103(a)

Claims 54-64 are rejected under 35 U.S.C § 103(a) as being unpatentable over either Soderlund (U.S. patent 6,013,431) or Soderlund (WO 91/13075, either in view of Mackay (U.S. patent 4,874,492).

Claim 54 has been amended to recite that the primers comprise an array of immobilized, consecutive, single-stranded oligonucleotides having known sequences, wherein each primer differs from the previous primer in the array by one base at the 3' end, and wherein the primers are capable of hybridizing successively along the polynucleotide of interest, generating a plurality of annealed primers.

Soderlund teaches that the target is immobilized (Col. 6, lines 1-52, Fig. 3, Col 9, lines 27-28). Soderlund does not teach or suggest that the detection primers are immobilized (see Col. 7, line 7-65).

There is no teaching or suggestion in Soderlund to immobilize the primer. Therefore, there is no motivation in the teachings of Soderlund to annealing a single sample of the polynucleotide of interest to a plurality of primers, wherein the primers comprise an array of immobilized, consecutive, single-stranded oligonucleotides having known sequences, wherein each primer differs from the previous primer in the array by one base at the 3' end, and wherein the primers are capable of hybridizing successively along the polynucleotide of interest, generating a plurality of annealed primers.

Claim 54, as amended, is patentable over the teachings of Soderlund in view of Mackay. Claims 55-64 are dependent from Claim 54 and include all of the limitations of Claim 54. Therefore, Claims 55-64 are also patentable over Soderlund in view of Mackay. Withdrawal and reconsideration of the rejection is respectfully requested.

Objection to Claims


Claim 65 was objected to as being dependent upon a rejected base claim. The base claim, Claim 54, has been amended as describe above and should now be allowable over the cited art. Therefore, withdrawal and reconsideration of the objection to Claim 65 is respectfully requested.

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

By 
Sandra A. Brockman-Lee
Registration No. 44,045
Telephone: (978) 341-0036
Facsimile: (978) 341-0136

Concord, MA 01742-9133

Dated: 12/17/04